

Fri Mar 19 13:19:41 2004

us-09-989-981a-4.rapb

Page 1

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: March 17, 2004, 18:47:23 ; Search time 25.8652 Seconds

(without alignments)
6883.183 Million cell updates/sec

Title: US-09-989-981a-4

Perfect score: 3494

Sequence: 1 MAEKTEFTQWNGTVLQDA.....FLFVYLSLKIKKQSIQDW 672

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1045404 seqs, 257433775 residues

Total number of hits satisfying chosen parameters: 1045404

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :

1: /cgnt2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*
2: /cgnt2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep:*
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6: /cgnt2_6/ptodata/1/pubpaa/US02_PUBCOMB.pep:*
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16: /cgnt2_6/ptodata/1/pubpaa/US02_PUBCOMB.pep:*
17: /cgnt2_6/ptodata/1/pubpaa/US01_PUBCOMB.pep:*
18: /cgnt2_6/ptodata/1/pubpaa/US00_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	3494	100.0	672	US-09-989-981a-4	Sequence 4, Appl1
2	2883.5	82.5	673	US-09-989-981a-8	Sequence 8, Appl1
3	2879.5	82.5	673	US-10-090-455-7	Sequence 7, Appl1
4	1508.5	43.2	374	US-10-415-378-9	Sequence 14, Appl1
5	753	20.1	725	US-10-424-599-175941	Sequence 175941, Appl1
6	701.5	20.1	652	US-09-837-992-1	Sequence 1, Appl1
7	701.5	20.1	652	US-09-989-981a-2	Sequence 2, Appl1
8	697	19.9	651	US-09-837-992-3	Sequence 3, Appl1
9	697	19.9	651	US-09-989-981a-6	Sequence 6, Appl1
10	697	19.9	651	US-10-090-455-6	Sequence 6, Appl1
11	672.5	19.2	657	US-09-866-866a-14	Sequence 14, Appl1
12	659.5	18.9	655	US-09-981-353-35	Sequence 35, Appl1
13	659.5	18.9	655	US-10-120-687-61	Sequence 61, Appl1
14	659.5	18.9	655	US-10-405-806-2	Sequence 2, Appl1
15	657.5	18.8	655	US-09-961-086-1	Sequence 1, Appl1

16	657.5	18.8	655	US-10-405-806-13	Sequence 13, Appl1
17	655	18.7	655	US-09-866-866a-10	Sequence 10, Appl1
18	655	18.7	655	US-10-090-455-5	Sequence 5, Appl1
19	651.5	18.6	655	US-09-866-866a-27	Sequence 27, Appl1
20	639	18.3	638	US-10-072-621-10	Sequence 10, Appl1
21	638	18.3	638	US-10-090-455-4	Sequence 4, Appl1
22	638	18.3	638	US-10-429-160-10	Sequence 10, Appl1
23	630.5	18.0	633	US-10-108-605-245	Sequence 245, Appl1
24	619	17.7	623	US-10-424-599-154459	Sequence 154459, Appl1
25	616.5	17.6	695	US-10-424-599-176182	Sequence 176182, Appl1
26	605	17.3	599	US-10-210-130-14	Sequence 14, Appl1
27	601	17.2	819	US-10-425-114-54421	Sequence 54421, Appl1
28	598	17.1	1095	US-10-369-493-2025	Sequence 2025, Appl1
29	590	16.9	545	US-10-083-357-1335	Sequence 1335, Appl1
30	581.5	16.6	559	US-10-369-493-5740	Sequence 5740, Appl1
31	573.5	16.4	676	US-10-369-493-3799	Sequence 3799, Appl1
32	567	16.2	1084	US-10-424-599-242078	Sequence 242078, Appl1
33	567	16.2	1101	US-10-425-114-63125	Sequence 63125, Appl1
34	566.5	16.2	1049	US-10-369-493-1520	Sequence 1520, Appl1
35	563.5	16.1	627	US-10-090-455-8	Sequence 8, Appl1
36	562.5	16.1	656	US-10-154-452-4	Sequence 4, Appl1
37	562.5	16.1	656	US-10-425-114-53846	Sequence 53846, Appl1
38	562.5	16.1	673	US-10-425-114-64380	Sequence 64380, Appl1
39	562	16.1	658	US-10-369-493-5347	Sequence 5347, Appl1
40	560.5	16.0	646	US-10-154-452-8	Sequence 8, Appl1
41	560.5	16.0	646	US-10-090-455-13	Sequence 13, Appl1
42	557.5	16.0	646	US-10-072-621-9	Sequence 9, Appl1
43	557.5	16.0	646	US-10-090-455-2	Sequence 2, Appl1
44	548	15.7	469	US-10-425-114-39525	Sequence 39525, Appl1
45	539.5	15.4	646	US-10-079-087-2	Sequence 2, Appl1

ALIGNMENTS

RESULT 1
US-09-989-981a-4
Sequence 4, Application US/09989981A
Publication No. US20030049730A1
GENERAL INFORMATION:
APPLICANT: Hobbs, Helen H.
APPLICANT: Shari, Sei
APPLICANT: Barnes, Robert
APPLICANT: Tian, Hui
APPLICANT: Tularik Inc.
TITLE OF INVENTION: ABCGS and ABCGS: Compositions and Methods of Use
FILE REFERENCE: 016781-007320US
CURRENT APPLICATION NUMBER: US/09/989, 981A
CURRENT FILING DATE: 2002-07-23
PRIOR APPLICATION NUMBER: US 60/252,235
PRIOR FILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/253,645
PRIOR FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 13
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
LENGTH: 672
TYPE: PRT
ORGANISM: Mus musculus
FEATURE:
OTHER INFORMATION: mouse ABCGS (MABCGS)
US-09-989-981a-4
Query Match 100.0%; Score 3494; DB 10; Length 672;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 672; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MAEKTEFTQWNGTVLQDASGLQPSFSSSDNSLYFTYSGQNTLEVDLYQVDIAS 60
Db 1 MAEKTEFTQWNGTVLQDASGLQPSFSSSDNSLYFTYSGQNTLEVDLYQVDIAS 60
QY 61 QYFWPEQQAQFPIPKRSHSSQDSCELGIRNLSFKVRSGQMLAIIGSGCCGRASLDIVTG 120

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Db 61 QVWFEDLQAFKIPMRSHSODSCGELGIRLSEKVSQGLALIGSSGCGRASLIDVITG 120
QY 121 RGHGKXKSGQIWINQOPSTPOLVRKCAVHRQDQLPMLTRETAFIAQRLPRTFS 180
Db 121 RGHGKXKSGQIWINQOPSTPOLVRKCAVHRQDQLPMLTRETAFIAQRLPRTFS 180
QY 181 QAORDKREVDVIAELRLQOCANTRVGNTYVRGVSGGERRRVSIGVQLMNPGLILDEPT 240
Db 181 QAORDKREVDVIAELRLQOCANTRVGNTYVRGVSGGERRRVSIGVQLMNPGLILDEPT 240
QY 241 SGDSFTAHNLVTTLSRLAKGNRLVLSLHQPBSDIFRLFDVLMTSGTPIYLGAAQOM 300
Db 241 SGDSFTAHNLVTTLSRLAKGNRLVLSLHQPBSDIFRLFDVLMTSGTPIYLGAAQOM 300
QY 301 VOYFTSIGHPCPRYSNPADFYVDLTSIDRSKEREVATVEKAQSLALFLEKYQGFDFL 360
Db 301 VOYFTSIGHPCPRYSNPADFYVDLTSIDRSKEREVATVEKAQSLALFLEKYQGFDFL 360
QY 361 WKAKAKELNTHSTHTVSLTLTODTCGTAVELPGMIEQFSTLIRROIENDRDLPTLIH 420
Db 361 WKAKAKELNTHSTHTVSLTLTODTCGTAVELPGMIEQFSTLIRROIENDRDLPTLIH 420
QY 421 SEACLMSTLIGFLYGGAKQLSPMDTALLFMIGALIPFNVLIDVYSKCHSERSMLYE 480
Db 421 SEACLMSTLIGFLYGGAKQLSPMDTALLFMIGALIPFNVLIDVYSKCHSERSMLYE 480
QY 481 LEDGLYTAGPYFFAKIIGELPEHCAYIITYAMPYMLTNRPVDELFLHFLVWLVEFC 540
Db 481 LEDGLYTAGPYFFAKIIGELPEHCAYIITYAMPYMLTNRPVDELFLHFLVWLVEFC 540
QY 541 CRTMALASAMLPFTHSSPFCNALYNSFYLTAGFMINDLMTVPAMISKSLFRWCF 600
Db 541 CRTMALASAMLPFTHSSPFCNALYNSFYLTAGFMINDLMTVPAMISKSLFRWCF 600
QY 601 GLMOIQFNGHLYTTOIGNFTSIIIGDTWISAMDNHPLVAYIYIVIGISYGFELVYL 660
Db 601 GLMOIQFNGHLYTTOIGNFTSIIIGDTWISAMDNHPLVAYIYIVIGISYGFELVYL 660
QY 661 LKLIKOKSIQDM 672
Db 661 LKLIKOKSIQDM 672

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RESULT 2

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US-09-989-981a-8
; Sequence 8, Application US/09989981A
; Publication No. US20030049730A1
; GENERAL INFORMATION:
; APPLICANT: Hobbs, Helen H.
; APPLICANT: Shan, Bei
; APPLICANT: Barnes, Robert
; APPLICANT: Tian, Hui
; APPLICANT: Tularik Inc.
; APPLICANT: Board of Regents, The University of Texas System
; TITLE OF INVENTION: ABCG5 and ABCG8: Compositions and Methods of Use
; FILE REFERENCE: 018781-007320US
; CURRENT APPLICATION NUMBER: US/09/989,981A
; PRIOR FILING DATE: 2002-07-23
; PRIOR APPLICATION NUMBER: US 60/252,235
; PRIOR FILING DATE: 2000-11-20
; PRIOR APPLICATION NUMBER: US 60/253,645
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 673
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: human ABCG8 (hABCG8)
US-09-989-981a-8

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Query Match 82.5%; Score 2883.5; DB 10; Length 673;
Best Local Similarity 81.9%; Pred. No. 2,26-266;
Matches 551; Conservative 52; Mismatches 69; Indels 1; Gaps 1;

QY 1 MAEKTEBTOAMNTVLODASGLQDSLFSESDNSLYFTYSGQNTLEVDLTYYQVDIAS 60
Db 1 MAGKAEERGLPKRATQODISGLQDRLFSESDNSLYFTYSGQNTLEVDLNVQVDIAS 60
QY 61 QVWFEDLQAFKIPMRSHSODSCGELGIRLSEKVSQGLALIGSSGCGRASLIDVITG 120
Db 61 QVWFEDLQAFKIPMRSHSODSCGELGIRLSEKVSQGLALIGSSGCGRASLIDVITG 120
QY 121 RGHGKXKSGQIWINQOPSTPOLVRKCAVHRQDQLPMLTRETAFIAQRLPRTFS 180
Db 121 RGHGKXKSGQIWINQOPSTPOLVRKCAVHRQDQLPMLTRETAFIAQRLPRTFS 180
QY 181 QAORDKREVDVIAELRLQOCANTRVGNTYVRGVSGGERRRVSIGVQLMNPGLILDEPT 240
Db 181 QAORDKREVDVIAELRLQOCANTRVGNTYVRGVSGGERRRVSIGVQLMNPGLILDEPT 240
QY 241 SGDSFTAHNLVTTLSRLAKGNRLVLSLHQPBSDIFRLFDVLMTSGTPIYLGAAQOM 300
Db 241 SGDSFTAHNLVTTLSRLAKGNRLVLSLHQPBSDIFRLFDVLMTSGTPIYLGAAQOM 300
QY 301 VOYFTSIGHPCPRYSNPADFYVDLTSIDRSKEREVATVEKAQSLALFLEKYQGFDFL 360
Db 301 VOYFTSIGHPCPRYSNPADFYVDLTSIDRSKEREVATVEKAQSLALFLEKYQGFDFL 360
QY 361 WKAKAKELNTHSTHTVSLTLTODTCGTAVELPGMIEQFSTLIRROIENDRDLPTLIH 420
Db 361 WKAKAKELNTHSTHTVSLTLTODTCGTAVELPGMIEQFSTLIRROIENDRDLPTLIH 420
QY 421 SEACLMSTLIGFLYGGAKQLSPMDTALLFMIGALIPFNVLIDVYSKCHSERSMLYE 480
Db 421 SEACLMSTLIGFLYGGAKQLSPMDTALLFMIGALIPFNVLIDVYSKCHSERSMLYE 480
QY 481 LEDGLYTAGPYFFAKIIGELPEHCAYIITYAMPYMLTNRPVDELFLHFLVWLVEFC 540
Db 481 LEDGLYTAGPYFFAKIIGELPEHCAYIITYAMPYMLTNRPVDELFLHFLVWLVEFC 540
QY 540 CCRMALASAMLPFTHSSPFCNALYNSFYLTAGFMINDLMTVPAMISKSLFRWCF 599
Db 541 CCRMALASAMLPFTHSSPFCNALYNSFYLTAGFMINDLMTVPAMISKSLFRWCF 600
QY 600 SGMOIQFNGHLYTTOIGNFTSIIIGDTWISAMDNHPLVAYIYIVIGISYGFELVYL 659
Db 601 EGLMKIQFRRRTYKXPLGNTTAVSGDKILSAMELDSPLVAYIYIVIGISYGFELVYL 660
QY 660 SLKLIKOKSIQDM 672
Db 661 SLKLIKOKSIQDM 673

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RESULT 3

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US-10-090-455-7
; Sequence 7, Application US/10090455
; Publication No. US20030027259A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Hongyun
; APPLICANT: Le Bilhan, Stephane
; TITLE OF INVENTION: NOVEL ABCG4 TRANSPORTER AND USES THEREOF
; FILE REFERENCE: 100103,406
; CURRENT APPLICATION NUMBER: US/10/090,455
; PRIOR FILING DATE: 2002-03-01
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 7
; LENGTH: 673
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-090-455-7

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Query Match

82.4%; Score 2879.5; DB 14; Length 673;

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US-09-989-981a-4.rapb

Page 3

Best Local Similarity 81.7%; Pred. No. 5,36-266; Matches 550; Conservative 52; Mismatches 70; Indels 1; Gaps 1;

1 MAEKKEEQLWNGTTLQADAGLQSLPESSESDNLYFYSGQSTLEVRDLYQVDIAS 60
1 MAGKAAERGLPKGATPDQTSGLQRLPSESSESDNLYFYSGQSTLEVRDLYQVDIAS 60

61 QVWFEQLAQFKI PWRSHSSQDSCEIGIRNLSFKYRSGQMLATISSGCGRSLDVTG 120
61 QVWFEQLAQFKI PWRSHSSQDSCEIGIRNLSFKYRSGQMLATISSGCGRSLDVTG 120

121 RHGGGKMSGGIWMNQSTPOLYRKCAVHVRQHQLNLTRETLAFIAQMLPRFES 180
121 RHGGGKMSGGIWMNQSTPOLYRKCAVHVRQHQLNLTRETLAFIAQMLPRFES 180

181 QAKRQKVEDVIAELRLQACANTRVGNTRYGVSGGERRRVSIGVQLMNPGLILDEPT 240
181 QAKRQKVEDVIAELRLQACANTRVGNTRYGVSGGERRRVSIGVQLMNPGLILDEPT 240

241 SGLDSTANLVTTLSRLAKGNRLVLSHQRSDIFRLFDLVLTMTSGTPIYLGAAQOM 300
241 SGLDSTANLVTTLSRLAKGNRLVLSHQRSDIFRLFDLVLTMTSGTPIYLGAAQOM 300

301 VOYFTSIGHPCPRYSPADFYVDLTSIDRSKEREVAIVEKAQSLAALFLEKVGQFDFL 360
301 VOYFTSIGHPCPRYSPADFYVDLTSIDRSKEREVAIVEKAQSLAALFLEKVGQFDFL 360

361 WKAELNSTHTVSLTLTQDTC-GTAVELPGMEQSTLIRQISNDFRDLPTLLH 419
361 WKAELNSTHTVSLTLTQDTC-GTAVELPGMEQSTLIRQISNDFRDLPTLLH 419

420 GSEACIMSLIIGLYYGHGAKQSLFMDTALLFMIGALIPFNVLIDVYKCHSERSMY 479
420 GSEACIMSLIIGLYYGHGAKQSLFMDTALLFMIGALIPFNVLIDVYKCHSERSMY 479

481 ELEDGLYTAGPYFAKILGELPEHCAYVITYAMPITWNLPRVPELFLHLLVWLV 539
481 ELEDGLYTAGPYFAKILGELPEHCAYVITYAMPITWNLPRVPELFLHLLVWLV 539

540 CCRTMALAASAMLPFHMSSEFCNALYNSFYLTAGFMINDMIVPAMISKLSFLRWC 599
540 CCRTMALAASAMLPFHMSSEFCNALYNSFYLTAGFMINDMIVPAMISKLSFLRWC 599

600 SGIMQIQFNHLYTTOIGNFTSILGDTMISANDLSHPYALYLYVIGISYGFLLY 659
600 SGIMQIQFNHLYTTOIGNFTSILGDTMISANDLSHPYALYLYVIGISYGFLLY 659

660 SLKLIKOKSIQDM 672
660 SLKLIKOKSIQDM 672

US-10-415-378-9
Sequence 9, Application US/10415378
Publication No. US20040014945A1

GENERAL INFORMATION:
APPLICANT: INCYTE CORPORATION; TANG, Y. Tom
APPLICANT: YUE, Henry; NGUYEN, Daniel B.;
APPLICANT: HAFALIA, April J.A.; ELIOT, Vicki S.;
APPLICANT: LU, Yan; CHAWLA, Nandinder K.;
APPLICANT: YAO, Montague G.; BAUGHN, Mariah R.;
APPLICANT: GANDHI, Ameena R.; DING, Li;
APPLICANT: SANJAYKALA, Madhusudan M.; RAMKUMAR, Jayalaxmi;
APPLICANT: ARVIZO, Chandra S.; GIBBEN, Kimberly C.;
APPLICANT: LAL, Preeti G.; AZIMZAI, Yalda;
APPLICANT: KHAN, Farrah A.; THANGAVELU, Kavitha;
APPLICANT: THORNTON, Michael B.; LU, Dyang Aina M.;
APPLICANT: TRIBOLEV, Catherine M.; WARREN, Bridget A.;
APPLICANT: ISON, H. Craig; DAS, Deepriya;
APPLICANT: RAMMAN, Brigitte E.; POLICK, Jennifer L.;
APPLICANT: KERNREY, Liam
TITLE OF INVENTION: TRANSPORTERS AND ION CHANNELS

FILE REFERENCE: PI-0270 USN
CURRENT APPLICATION NUMBER: US/10/415, 378
CURRENT FILING DATE: 2003-05-07
PRIOR APPLICATION NUMBER: PCT/US01/46055
PRIOR FILING DATE: 2001-10-27
PRIOR APPLICATION NUMBER: US 60/250,790
PRIOR FILING DATE: 2000-12-01
PRIOR APPLICATION NUMBER: US 60/252,232
PRIOR FILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/249,661
PRIOR FILING DATE: 2000-11-17
PRIOR APPLICATION NUMBER: US 60/247,673
PRIOR FILING DATE: 2000-11-09
PRIOR APPLICATION NUMBER: US 60/245,904
PRIOR FILING DATE: 2000-11-03
PRIOR APPLICATION NUMBER: US 60/243,989
PRIOR FILING DATE: 2000-10-27
NUMBER OF SEQ ID NOS: 40
SOFTWARE: PERL Program
SEQ ID NO: 9
LENGTH: 374
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
OTHER INFORMATION: Incyte ID No. US20040014945A1 6585710CD1
US-10-415-378-9

Query Match 43.2%; Score 1508.5; DB 15; Length 374;
Best Local Similarity 74.9%; Pred. No. 36-135; Matches 280; Conservative 43; Mismatches 50; Indels 1; Gaps 1;

300 MVOYFTSIGHPCPRYSPADFYVDLTSIDRSKEREVAIVEKAQSLAALFLEKVGQFDFL 359
1 MVOYFTSIGHPCPRYSPADFYVDLTSIDRSKEREVAIVEKAQSLAALFLEKVGQFDFL 359

360 LKRAEELNSTHTVSLTLTQDTC-GTAVELPGMEQSTLIRQISNDFRDLPTLLH 418
360 LKRAEELNSTHTVSLTLTQDTC-GTAVELPGMEQSTLIRQISNDFRDLPTLLH 418

419 HSEACIMSLIIGLYYGHGAKQSLFMDTALLFMIGALIPFNVLIDVYKCHSERSMY 478
419 HSEACIMSLIIGLYYGHGAKQSLFMDTALLFMIGALIPFNVLIDVYKCHSERSMY 478

479 YELEDGLYTAGPYFAKILGELPEHCAYVITYAMPITWNLPRVPELFLHLLVWLV 538
479 YELEDGLYTAGPYFAKILGELPEHCAYVITYAMPITWNLPRVPELFLHLLVWLV 538

539 FCCRTMALAASAMLPFHMSSEFCNALYNSFYLTAGFMINDMIVPAMISKLSFLRWC 598
539 FCCRTMALAASAMLPFHMSSEFCNALYNSFYLTAGFMINDMIVPAMISKLSFLRWC 598

659 FSGIMQIQFNHLYTTOIGNFTSILGDTMISANDLSHPYALYLYVIGISYGFLLY 658
659 FSGIMQIQFNHLYTTOIGNFTSILGDTMISANDLSHPYALYLYVIGISYGFLLY 658

672 SLKLIKOKSIQDM 672
672 SLKLIKOKSIQDM 672

US-10-424-599-175941
Sequence 175941, Application US/10424599
Publication No. US20040031072A1

GENERAL INFORMATION:
APPLICANT: LA ROBA Thomas J
APPLICANT: KOVALIC David K
APPLICANT: ZHOU Yihua
APPLICANT: CAO Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated with
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B

CURRENT APPLICATION NUMBER: US/10/424,599
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 175941
LENGTH: 725
TYPE: PRT
ORGANISM: Glycine max
FEATURE:
NAME/KEY: unsure
LOCATION: (1)..(725)
OTHER INFORMATION: unsure at all xaa locations
FEATURE:
OTHER INFORMATION: Clone ID: PAT_MRT3847_129893C.1.pap
US-10-424-599-175941

Query Match 21.6%; Score 753; DB 12; Length 725;
Best Local Similarity 30.4%; Pred. No. 1,66-62;
Matches 182; Conservative 121; Mismatches 253; Indels 42; Gaps 10;

QY 60 SQVWFPEQLAQFKIPWR-----SHSQDSCELGIRNLSPKRVSGOMLAIIGSSGCGRAS 113
DB 61 AEATSGKVTPEVTIOWNRINCSLSDKSSKARFILKRVSGEAKPGLAIIMGSGSGKTT 120
QY 114 LLDVITG-----RGHGKMKSGQIMINGQSTPQVLRKCAVHRQDQLPMLTVRETL 167
DB 121 LNLVLAQQLTASPLH-----LSGVLEFGKPKSGKNAYK--PAYVRQEDLFFSQTLVRETL 174
QY 168 AFIAQMRLEPRTFSQAORDEVEDYIAELRLQCANREVGNTYVRGVSGERRRVSIGVOL 227
DB 175 STATELOPNTSSAEERDEFNNLLPFLGLVSCADTVGAKVRGISGEEKLSVACEL 234
QY 228 LNMFGILLDEPTSGDLSFTMANLVTLSRLAKGNRLVLSLHOPRSDIRLFDVLMT 287
DB 235 LASPSVIFADBPPTGLAFQAEKVMETLQQLAQGHVTSIHQPRGSVSKPDDITLT 294
QY 288 SGTPIYLGAAG--QWQVFTSIGHPCPRYSNPADFYVDLTSIDRSKEREVATVEKAQSLA 346
DB 295 EGSIVYAPARDEPLATYKSKGYQCPDHINPAELADLISDYSASVTSQKRPGLV 354
QY 347 ALPLEKVOGPDPLMKAKELNTSTHTVSLTLTQDTDCGTAHVLPM--IQBSTILRRQ 405
DB 355 ESFSGR--QSAVIYATPTITINDLSNSRKISQR-----AVYKKQVMMKQFLLKRA 405
QY 406 ISNPFRLPTLLHSGEACMSLIIFLYYGHAKOLFMDTALLFMIGALIPFNIL 465
DB 406 WMOASRDPAFTKVRARMSIASIIFGSYFWMGNSQISIODRMGLLVTAINTMALTK 465
QY 466 VVSKCHSRSMLYLEDEGLYTAGYFPAKILGELPEHCAYVIIYAMPYLTNLKRVPE 525
DB 466 TVGVPERKRAIYDRBRAGSYSLGPLYBSKLLAEIPGAAPLMFGAVLYPMARLHPTMQ 525
QY 526 LFLHLFLVWLNVFCCRTMALAASAMLPFMHSPFCNALNSFYLAGFMINDNIMIV 585
DB 526 RFGKFCGVIVTESFASAMGLTVGAMVPTTBAAVAGVSLMTVITVGGYVYVNEENPII 585
QY 586 PAMISKLSFLKWCPSGLMQIOFNG-----HLVTTQIS-----NFTSILSDTMS 630
DB 586 FFWINWVSLIRWAFGLSINERSGQFDHSHFDIQGEALERISFGSKRIRDTVIA 643

RESULT 6
US-09-837-992-1
Sequence 1, Application US/09837992
Patent No. US20020081687A1
GENERAL INFORMATION:
APPLICANT: Tian, Hui
APPLICANT: Schultz, Joshua
APPLICANT: Shan, Bei
APPLICANT: Tularik Inc.
TITLE OF INVENTION: Sltosterolemia Susceptibility Gene (SSG): Compositions
TITLE OF INVENTION: and Methods of Use
FILE REFERENCE: 018781-006020US
CURRENT APPLICATION NUMBER: US/09/837,992

CURRENT FILING DATE: 2001-04-18
PRIOR APPLICATION NUMBER: US 60/198,465
PRIOR FILING DATE: 2000-04-18
PRIOR APPLICATION NUMBER: US 60/204,234
PRIOR FILING DATE: 2000-05-15
NUMBER OF SEQ ID NOS: 45
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1
LENGTH: 652
TYPE: PRT
ORGANISM: Mus musculus
FEATURE:
OTHER INFORMATION: mouse sltosterolemia susceptibility gene (SSG)
OTHER INFORMATION: amino acid sequence
US-09-837-992-1

Query Match 20.1%; Score 701.5; DB 9; Length 652;
Best Local Similarity 29.1%; Pred. No. 1,1e-57;
Matches 194; Conservative 131; Mismatches 245; Indels 97; Gaps 19;

QY 24 QDSLFSSSDNS--LYFTYGGQSVTLVRLTYQVNDIASOV--PWFEDLAQFKIPWRS 79
DB 27 QGSVGTGARSRLGYLHVSYS-----VSNVGHM-----WNKS 60
QY 80 SODSCELGIRNLSPKRVSGOMLAIIGSSGCGRASLLDVITGRGHGKMKSGQIMINGQ 138
DB 61 CQKMDROLNDVSLYISGQIMCTLSSGSGKTTLDALISGLRLRTGLEGVANGCE 120
QY 139 STPQVLRKCAVHRQDQLPMLTVRETLATQMRLEPRTFSQAORDEVEDYIAELRL 198
DB 121 LRRDFOCFQSVYLOSDFLSLTVRETLRYTAMALCRS--SADFYNKVAWMTLSLS 179
QY 199 QCANTRVGNTRYVRGVSGERRRVSIGVOLNMPGILLDEPTSGDLSFTANLVTLSRL 258
DB 180 HVAQDMSYNGFSGISSEGRRRVSIQAQLDQPKWMLDEFTTGDCMTAQVILLAE 239
QY 259 AKGNELVLSLHOPRSDIFRLFDVLMTSGTPIYLGAAGQWQVFTSIGHPCPRYSNPA 318
DB 240 ARDRIVYIYTHQPSSELFQHEFDKIALITYGELVFCGPEEMTGFPNNCGYPCPEHSPF 299
QY 319 DRYVULTSIDRSKEREVATVEKAQSLAALPLEKVOGPDPLMKAKELNTSTHTVSLT 378
DB 300 DRYMDLTSVDTOSRRRELSITKRVOMLECAFE-----SDIYHKI--LENIRARVLTLP 353
QY 379 L-----TQDTDCGTAHVLPMLEQFSTLIRQISNDFRLPTLLHSGEACMSLIIGF-- 432
DB 354 WVPFKTKD-----PQMFGLGVLLRVYTRNLRNKQAVIMLVONLIMGFLIYVL 405
QY 433 LYGHGAKLSFMDTALLFMIGALIPFNILDVYKCHSRSMLYLEDEGLYTAGYF 492
DB 406 LRVQNTLTGAAQVDRVGLLYOLVGATPYTGMINAVNLPMLEAVSDQSDQLYHKMQL 465
QY 493 FAKILGELPEHCAYVIIYAMPYLTNLKRVPELF-----LL--HFLVWLNVFCCRTM 544
DB 466 LAYVLHVLFFSVIATYIPESVCYMTLGYPEVARGYFSAALLAHLIGEFL-----TL 519
QY 545 ALAASMLPTFMHSPFCNALNSFYLAGFMINDNIMIVYAMISKLSFLWCPSGLMQ 604
DB 520 VILGIQVQENI--VNSVALLSISGLLISGGLFRTNIOEMPIPLKILGYFTFOKICEILV 578
QY 605 IQPFGHLYTTOIGNFTSILGDTMSAMDINSHPYAIVLYIGSY----- 651
DB 579 NEFYGL-----NFTCGSNTSM-----NHPMCA--ITQGVQFIKTCPGATSRPT 622
QY 652 -GFLY 657
DB 623 ANFLILY 629

RESULT 7
US-09-989-981a-2
Sequence 2, Application US/09989981a
Publication No. US20030049730A1

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GENERAL INFORMATION:
APPLICANT: Hobbs, Helen H.
APPLICANT: Shan, Bei
APPLICANT: Barnes, Robert
APPLICANT: Tian, Hui
APPLICANT: Tularik Inc.
APPLICANT: Board of Regents, The University of Texas System
TITLE OF INVENTION: ABCG5 and ABCG8: Compositions and Methods of Use
FILE REFERENCE: 018781-007320US
CURRENT APPLICATION NUMBER: US/09/989,981A
PRIOR FILING DATE: 2002-07-23
PRIOR APPLICATION NUMBER: US 60/252,235
PRIOR FILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/253,645
PRIOR FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 13
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 2
LENGTH: 652
TYPE: PRT
ORGANISM: Mus musculus
FEATURE:
OTHER INFORMATION: mouse ABCG5 (mABCG5)
US-09-989-981A-2

Query Match      20.1%; Score 701.5; DB 10; Length 652;
Best Local Similarity 29.1%; Pred. No. 1.1e-57;
Matches 194; Conservative 131; Mismatches 245; Indels 97; Gaps 19;

QY 24 QDSLSESDNS---LYFTYSGSNTLEVRDLTYVDIASQV-PWFEOAQFKIPWESHS 79
DB 27 QGSVGTGRHSLGVLHYS-----YSNVGPR-----NAIKS 60
QY 80 SQDSCELG-I-RNLSFKVSGQMLAIISSGCGRSLDVTITGRGHGKMSGQIWINQOP 138
DB 61 CQCKMDROILKQVSYIYESGQIMCIIGSSGSKTLLDAISGRIRRTGLEGEVAVNGCE 120
QY 139 STFOVVRKCVAVHRCQDQLPNTLVRETAFIAQMRPRTSQORDKREVDVAEFLR 198
DB 121 LRRDQDQDFSVYVLSQDVLSSLYRRTIRYTMALQRS-SADPYNKQKAVVTELSLS 179
QY 199 QCANTRVGTIVRGVSGERRRVSIGVOLLNPGILIDPTSGDSTFANHTVTTSL 258
DB 180 HVADQWIGSYNFGSSGERRRVSIAQQLDQPKVMMDDEPTTGDCMTAQIVLLAE 239
QY 259 AKGNRLVILSLHOPRSDIFRLFDVLMTSGTPYILGAQOQVOYFTSIGHPCRYGNSPA 318
DB 240 ARDRIVITIHQPRSELFQHDKAILTYGELVCGTPREMLGFPNNCGYPCPEHGNPF 299
QY 319 DRYVDLTSIDRRSKEREVAITYEKAQSLAALFLEKYQGFDDFLMKAEKELNTSTHTVSLT 378
DB 300 DRYMDLTSYDTSRREBIETIRVOMLECAFE-----SDIYHKI-LENIRAEVLTLP 353
QY 379 L-----TOPTDCGTAVALPQMIQFSTLIRROISNDFRLPTLLIHGSEACMSIIGP-- 432
DB 354 NMPFKIKD-----PGMPKGLGVILRRVTRILMRKQAVIRKLVONLNGILFIFL 405
QY 433 LYVGHGAKQLSMDTALLFMIGALIPFNVLIDVYSKHSERSMLYELDGLYTAGPYF 492
DB 406 LRVONNTLKGAVQDRVGLLYGVATPYTGMLNANVLEPMLRAVSDQSGLVHKNQML 465
QY 493 FAKILGELPEHCAVYIYAMPYIMLTNLRPVPEL-----L--HFLVWLNVFCRRTM 544
DB 466 LAYVHLVLPFSVLAIVTIFSSVCYMTLGLVPEVARGYSAALLANHLIGELP-----TL 519
QY 545 ALAASAMLPTRHNSFCNALNSFYLTAQFMINDNITVPAMTSKLSIFRWCFSGIMQ 604
DB 520 VLLGVQVQNPRI-VNSIVALLSISGLIGSFIRNTQEMPIKILGYTFQKYCCELIV 578
QY 605 IQENGLHYTQIQNFTSILGDTMISANDMNSHPYALYILYIGISY----- 651
DB 579 NERYGL-----NFTCGGSNTSMI-----NHPMCA-----ITQGVFLEKTPGATSRFT 622

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QY 652 -GELFLY 657
DB 623 ANFLILY 629

RESULT 8
US-09-837-992-3
Sequence 3: Application US/09837992
Patent No. US20020081687A1
GENERAL INFORMATION:
APPLICANT: Tian, Hui
APPLICANT: Schultz, Joshua
APPLICANT: Shan, Bei
APPLICANT: Tularik Inc.
TITLE OF INVENTION: Sitosterolemia Susceptibility Gene (SSG): Compositions and Methods of Use
FILE REFERENCE: 018781-006020US
CURRENT APPLICATION NUMBER: US/09/837,992
PRIOR FILING DATE: 2001-04-18
PRIOR APPLICATION NUMBER: US 60/198,465
PRIOR FILING DATE: 2000-04-18
PRIOR APPLICATION NUMBER: US 60/204,234
PRIOR FILING DATE: 2000-05-15
NUMBER OF SEQ ID NOS: 45
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 3
LENGTH: 651
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: human sitosterolemia susceptibility gene (SSG)
US-09-837-992-3

Query Match      19.9%; Score 697; DB 9; Length 651;
Best Local Similarity 29.1%; Pred. No. 3.1e-57;
Matches 195; Conservative 129; Mismatches 263; Indels 84; Gaps 18;

QY 17 LGDASGLDLS---FSSSDNSLYFTYSGSNTLEVRDLTYVDIASQVPMFQQLAQFK 72
DB 15 LQVNRSGQSLGAPATAPRPHSLGILHASVSVHRR-----PMD-ITSCR 61
QY 73 IWRSHSODSCGELGIRNLSFKVSGQMLAIISSGCGRSLDVTITGRGHGKMSGQ 121
DB 62 QQMTROI-----LKQVSLYESGQIMCIIGSSGSKTLLDMAGRGRAQTF-LGE 112
QY 132 IWINQPSRTPOLVRKCVAVHRCQDQLPNTLVRETAFIAQMRPRTSQORDKREVDV 191
DB 113 VVNGARLRREQFOCFEYVLSQDVLSSLYRRTIRYTMALQRS-SADPYNKQKAVVTELSLS 179
QY 192 IAEIRLOCANTRVGNITVAVSGERRRVSIGVOLLNPGILIDPTSGDSTFANHT 251
DB 172 MAELSLSHVADLILNYSILGISTERRRVSIAQQLDQPKVMMDDEPTTGDCMTAQI 231
QY 252 VTTLSRLAKGNRLVILSLHOPRSDIFRLFDVLMTSGTPYILGAQOQVOYFTSIGHPC 311
DB 232 VVLLVELARRKRIIVTLIHQPRSELFQHDKAILTYGELVCGTPREMLGFPNNCGYPC 291
QY 312 PRYSNPADRYVDLTSIDRRSKEREVAITYEKAQSLAALFLEKYQGFDDFLMKAEKELNTS 371
DB 292 PEHNSPFPYMDLTSYDTSRREBIETIRVOMLECAFE-----ICHKTKNIERM 345
QY 372 THTVSLT-----TOPTDCGTAVALPQMIQFSTLIRROISNDFRLPTLLIHGSEACIMS 427
DB 346 KILKTLIPWPFKIKD-----PGVSKGLGVILRRVTRILMRKQAVIRKLVONLNGILFIFL 405
QY 428 LTIIGLYVGHGAKQI--SPMDTALLFMIGALIPFNVLIDVYSKHSERSMLYELDGL 485
DB 398 LFLFVFLVRNSNVKGAIDRVGLLYGVATPYTGMLNANVLEPMLRAVSDQSGLVHKNQML 465
QY 486 YTAGPYFAKILGELPEHCAVYIYAMPYIMLTNLRPVPEL-----L--HFLVWLNV 537
DB 458 YQKQOMLAIVLHVLPFSVLAIVTIFSSVCYMTLGLVPEVARGYSAALLANHLIGELP----- 516

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QY 538 VFCCRMALAAASAMLPTEHMSSEPCNALVNSFYLTAGFMINDLMIWPAWISKLSEFLRW 597
 DB 517 -----TLVLGIQVONPNI-VNSVVALLSIAGVVGSEFLNIQEMPIPKIISYFTFOKY 570
 QY 598 CFSGLMOIQFNGLYTTQIGNFTFSILGDTM-----ISANDLSHPLY 640
 DB 571 CSEILVNEFYGLNFT--CGSSNVSVTTPMCAFTQGIQIEKTCPGATSRFTMNFILLY 628
 QY 641 AIV--LIVIGI 649
 DB 629 SFIPALVILGI 639

RESULT 9

US-09-989-981A-6
 / Sequence 6, Application US/09989981A
 / Publication No. US20030049730A1
 / GENERAL INFORMATION:
 / APPLICANT: Hobbs, Helen H.
 / APPLICANT: Shan, Bei
 / APPLICANT: Barnes, Robert
 / APPLICANT: Tian, Hui
 / APPLICANT: Tularix Inc.
 / APPLICANT: Board of Regents, The University of Texas System
 / TITLE OF INVENTION: ABCG5 and ABCG8: Compositions and Methods of Use
 / FILE REFERENCE: 018781-007320US
 / CURRENT APPLICATION NUMBER: US/09/989,981A
 / PRIOR FILING DATE: 2002-07-23
 / PRIOR APPLICATION NUMBER: US 60/252,235
 / PRIOR FILING DATE: 2000-11-20
 / PRIOR APPLICATION NUMBER: US 60/253,645
 / NUMBER OF SEQ ID NOS: 13
 / SOFTWARE: Patent In Ver. 2.1
 / SEQ ID NO 6
 / LENGTH: 651
 / TYPE: PRT
 / ORGANISM: Homo sapiens
 / FEATURE:
 / OTHER INFORMATION: human ABCG5 (hABCG5)
 / US-09-989-981A-6

Query Match 19.9%; Score 697; DB 10; Length 651;
 Best Local Similarity 29.1%; Pred. No. 3.1e-57;
 Matches 195; Conservative 129; Mismatches 263; Indels 84; Gaps 18;

QY 17 LODASGLQDSU-----FSSSDNSLYFTYSGQSNTELEVRDLTYQVDIASQVPMFEQLAQFK 72
 DB 15 LQVNRSGSSLEGAPATAPBEPHSLGILHASYSVSHRYV-----PWND-ITSCR 61
 QY 73 IPWRSHSODSCGELGRNLSEFKVRSQGMALITGSSGGRASLLDVITGR-CHGGMKSGQ 131
 DB 62 QQWTRQI-----LKDVSLYVESGQIMCITLSSGSGKTTLLDAMSGRLGAGTF-LGE 112
 QY 132 IWINQGPSTPOLVRKCAVAVRQHDLPNLTVRETLAFIAQMLPRTFSQAQRDEVDV 191
 DB 113 VYVNGRALRREQFOCFYSYVLQSDTLISLTVRETLHYTALLAI-RRNPFSFGKVEAV 171
 QY 192 IAEFLRQCANTRVNTYVRSVGSGERRRVSIAGVOLLNPGILLIDEPSTGLDSTANL 251
 DB 172 MAELSLSHVADRLINYSGLGISTGERRRVSIAAQLDOPKVMLEFDEFTGLDCMTANQI 231
 QY 192 IAEFLRQCANTRVNTYVRSVGSGERRRVSIAGVOLLNPGILLIDEPSTGLDSTANL 251
 DB 222 VVLLVRLARRRNVLTIHQPSSELPQDPKXIALISFGELIFCGTPAEMLEDFNDGYPG 291
 QY 312 PRYSNPADFYVDLTSDRSKEREVAIVKAGSLAALFLEKVQGGDDFLMKBAKELNTS 371
 DB 292 PHSNPFDFYMDLTSVDQSKEREIETSKRVOMISAYKSA-----ICKTKLNIERM 345
 QY 372 THTVSLTL-----TQDDCGTAVELPMIOPFTLIRQISNDFRDLPTLLIHGSEACLS 427

DB 346 KHLKTLPMVPEFKTKDS-----PGVFSKLVLLRRVTRNLVRNKLAVITRLQLNLING 397
 QY 428 LIIGFLYGGHGAQOL--SFMDTALLFMIGALLPFWVILDVVSKCHSERMLYEELEDGI 485
 DB 398 LFLFLFVLRRSVNLKALIDRRGLLYQFVGAGPTPYGMNAVNLFPVLRVSDQESQDGI 457
 QY 486 YTAGPYFPAKILGELPCHCAVVIITYAMPITYWLTNLAPVPLF-----LL--FELLVWLV 537
 DB 458 YQKQMMALAYLAHPLPSVAVATMIFSSVCYWTGLGHPREVARFGYSAALAPHLIGEFF- 516
 QY 538 VFCCRMALAAASAMLPTEHMSSEPCNALVNSFYLTAGFMINDLMIWPAWISKLSEFLRW 597
 DB 517 -----TLVLGIQVONPNI-VNSVVALLSIAGVVGSEFLNIQEMPIPKIISYFTFOKY 570
 QY 598 CFSGLMOIQFNGLYTTQIGNFTFSILGDTM-----ISANDLSHPLY 640
 DB 571 CSEILVNEFYGLNFT--CGSSNVSVTTPMCAFTQGIQIEKTCPGATSRFTMNFILLY 628
 QY 641 AIV--LIVIGI 649
 DB 629 SFIPALVILGI 639

RESULT 10

US-10-090-455-6
 / Sequence 6, Application US/10090455
 / Publication No. US20030027259A1
 / GENERAL INFORMATION:
 / APPLICANT: Chen, Hongyun
 / APPLICANT: Le Bihan, Stephane
 / TITLE OF INVENTION: NOVEL ABCG4 TRANSPORTER AND USES THEREOF
 / FILE REFERENCE: 100103.406
 / CURRENT APPLICATION NUMBER: US/10/090,455
 / CURRENT FILING DATE: 2002-03-01
 / NUMBER OF SEQ ID NOS: 17
 / SOFTWARE: FastSeq for Windows Version 4.0
 / SEQ ID NO 6
 / LENGTH: 651
 / TYPE: PRT
 / ORGANISM: Homo sapiens
 / US-10-090-455-6

Query Match 19.9%; Score 697; DB 14; Length 651;
 Best Local Similarity 29.1%; Pred. No. 3.1e-57;
 Matches 195; Conservative 129; Mismatches 263; Indels 84; Gaps 18;

QY 17 LODASGLQDSU-----FSSSDNSLYFTYSGQSNTELEVRDLTYQVDIASQVPMFEQLAQFK 72
 DB 15 LQVNRSGSSLEGAPATAPBEPHSLGILHASYSVSHRYV-----PWND-ITSCR 61
 QY 73 IPWRSHSODSCGELGRNLSEFKVRSQGMALITGSSGGRASLLDVITGR-CHGGMKSGQ 131
 DB 62 QQWTRQI-----LKDVSLYVESGQIMCITLSSGSGKTTLLDAMSGRLGAGTF-LGE 112
 QY 132 IWINQGPSTPOLVRKCAVAVRQHDLPNLTVRETLAFIAQMLPRTFSQAQRDEVDV 191
 DB 113 VYVNGRALRREQFOCFYSYVLQSDTLISLTVRETLHYTALLAI-RRNPFSFGKVEAV 171
 QY 192 IAEFLRQCANTRVNTYVRSVGSGERRRVSIAGVOLLNPGILLIDEPSTGLDSTANL 251
 DB 172 MAELSLSHVADRLINYSGLGISTGERRRVSIAAQLDOPKVMLEFDEFTGLDCMTANQI 231
 QY 192 IAEFLRQCANTRVNTYVRSVGSGERRRVSIAGVOLLNPGILLIDEPSTGLDSTANL 251
 DB 222 VVLLVRLARRRNVLTIHQPSSELPQDPKXIALISFGELIFCGTPAEMLEDFNDGYPG 291
 QY 312 PRYSNPADFYVDLTSDRSKEREVAIVKAGSLAALFLEKVQGGDDFLMKBAKELNTS 371
 DB 292 PHSNPFDFYMDLTSVDQSKEREIETSKRVOMISAYKSA-----ICKTKLNIERM 345
 QY 372 THTVSLTL-----TQDDCGTAVELPMIOPFTLIRQISNDFRDLPTLLIHGSEACLS 427
 DB 346 KHLKTLPMVPEFKTKDS-----PGVFSKLVLLRRVTRNLVRNKLAVITRLQLNLING 397

QY 428 LIIGFLYYGHGAKQL--SPMDTALLFMIGALIPRVILDVYSKCHSERSMLYELEDGL 485
 Db 398 LFLLEFLVLRVSNVLKCALIDRVGLLYQFVGATPYGMNANVLEPVLRAVSDQSGQL 457
 QY 486 YTAGPYEFPAKIGELPEHCAYVLIYAMPYIMLTNLRPELFL-----LL--HPLLVMLV 537
 Db 458 YOKKQOMLAVLAHLVLFPSVAVATWIFSSVCYMTLGLHPEVARFGYSAALLAHLIGERFL- 516
 QY 538 VPCCRMTALAASAMLPRFHMSFPCNALNSFLITGPMINDNIMIVAMISKISFLRM 597
 Db 517 -----TLVLGIYONPRT--VNSVALLSLAGVLVSGFLRNIQEMPIPKIISYTFEOKY 570
 QY 598 CFSGLMOIQPNGLYTTQIGNFTFSILGDTM-----ISANDLSHPLY 640
 Db 571 CSEILVNERFYGNFT--CGSSNVSVTTPNMCATGQIGPIEKTCGATSRFTNMFILLY 628
 QY 641 AIV--LIVIGI 649
 Db 629 SPTPALVIGI 639

RESULT 11
 US-09-866-866A-14
 ; Sequence 14; Application US/09866866A
 ; Patent No. US20020102244A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Sorrentino, Brian
 ; APPLICANT: Schuetz, John
 ; TITLE OF INVENTION: A Method of Identifying and/or Isolating Stem Cells
 ; FILE REFERENCE: 1340-1-021CIP2
 ; CURRENT APPLICATION NUMBER: US/09/866,866A
 ; CURRENT FILING DATE: 2001-08-30
 ; PRIOR APPLICATION NUMBER: 09/584,586
 ; PRIOR FILING DATE: 2000-05-31
 ; PRIOR APPLICATION NUMBER: PCT/US99/11825
 ; PRIOR FILING DATE: 1999-05-27
 ; PRIOR APPLICATION NUMBER: 60/086,988
 ; PRIOR FILING DATE: 1998-05-28
 ; NUMBER OF SEQ ID NOS: 27
 ; SOFTWARE: PatentIn version 3.0
 ; SEQ ID NO 14
 ; LENGTH: 657
 ; TYPE: PRT
 ; ORGANISM: Mus musculus
 ; US-09-866-866A-14
 Query Match 19.2%; Score 672.5; DB 9; Length 657;
 Best Local Similarity 27.2%; Pred. No. 6,9e-55;
 Matches 176; Conservative 136; Mismatches 241; Indels 93; Gaps 16;
 QY 91 LSF-----KXNSGQML-----AIISSGCGRASILDVITGRG 122
 Db 37 LSFHITTYRVKXSGFLVRKYEKELISDINGIMKRGALNATIGPTGGKSSILDLAR- 95
 QY 123 HGSKMSGQIWINQGSTPOLVRKCVAYRQHDOLLPLNYRETLAFIAQMLPRTFQA 182
 Db 96 KDKKXLSGDLVINGAR-FAHFKCCSGYVDDVVMGTLTYRENIQFSAALRLPTMKH 154
 QY 183 QQRKREVDYIAELRQACANTRYGNTYVGVSGGERRVSIGVOLLNPGILLDEPTSG 242
 Db 155 EXKREINTIKELIGLKVADSKVQOFIRGISGGERKTSIGMELITDPSILFDEPTTG 214
 QY 243 LDFSTAHNVITLTLRLAKGNRLVLSIQPRSDIFRLFDVLVLMTSGTPIYGAAGQVQ 302
 Db 215 LDBSTANAVALLKXKSKGRITIFSIHQPRYSIKFLDPSILLASGLVHGRQKXLE 274
 QY 303 YFISIHPRERYNSPADFYVDLT-----IDRSKREVAITYVKAOSLAFLEKQK 355
 Db 275 YFASAGHCEPYNNPDLVDVINDSSAVMLNREBQNEANKTEPBGKRPVTEINISE 334
 QY 356 F--DDELWAKAEKELNTSTHTVSLTLTODTDCITAVELPGMIEQSTLIRQISNDFDL 413

Db 335 FYINSAIYGETKAEID-----QLPGAQEKCTSAFKPEVYVTSRCHQLRWIAERSFKNL 388
 QY 414 -----PTLIHSGEACMLIIGFLYYGHGAKQLSPMDTALLFMIGALIPRVILID 465
 Db 389 LGNPQASVALIV---TVILGLIIGAIYFDLKYDAQONRAGVLFEL----- 433
 QY 466 VNSKCHS-----ERSMLYELEDGLYTAGPYFAKILIG-LPEHCAYVLIYAMP 514
 Db 434 TNGCCSSVAVELFVVEKGLFIHEYISGYRVSSYFFGKXMSDLLPRFLPSVIFTCIL 493
 QY 515 YKLTNLRPVPELFLHFLVWLVPCCRTMALAASAMLPTHMSFPCNALYNSFYTAG 574
 Db 494 YFMGLKKTVDAFFIIMFTLINVAYTASSMALAIRTQSVSVATLMTIATFVFMFMFG 553
 QY 575 FMINLNL--WIVPAVISLFLMCFSGLMQICPNGLY-----TQIGNFTFSI 623
 Db 554 LVLNLTIGPWL--SNQYFSIPRYGFTALQYNEFLGCFPCGRVNTNSTCVASYACT 611
 QY 624 LGDTMTS-AMDNSHPLVAVIYIVIGISYGFLLYLSLKLIKQKS 668
 Db 612 GNEYILNQGIELSPWGLMKRHYVALACMIIFLTIYAKLLEPKKYS 657

RESULT 12
 US-09-981-353-35
 ; Sequence 35; Application US/09981353
 ; Patent No. US20020160382A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Laese, Amy W.
 ; APPLICANT: Jones, David A.
 ; TITLE OF INVENTION: GENES EXPRESSED IN COLON CANCER
 ; FILE REFERENCE: PA-0038 US
 ; CURRENT APPLICATION NUMBER: US/09/981,353
 ; CURRENT FILING DATE: 2001-10-11
 ; NUMBER OF SEQ ID NOS: 194
 ; SOFTWARE: PERL Program
 ; SEQ ID NO 35
 ; LENGTH: 655
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; NAME/KEY: misc feature
 ; OTHER INFORMATION: Incyte ID No. US20020160382A1 5517972CD1
 ; US-09-981-353-35

Query Match 18.9%; Score 659.5; DB 9; Length 655;
 Best Local Similarity 27.2%; Pred. No. 1.2e-53;
 Matches 185; Conservative 141; Mismatches 270; Indels 85; Gaps 21;
 QY 28 FSESBNSL-YTYSGQSNLEVRDLTYQVDIASGVPEFQDLAQFKPMRSHSSQDSCEL 86
 Db 20 FPAIASNDIKAFI--EQAVALSFHNIQYRVKLKGF-----LPCRPRVEKEI-- 63
 QY 87 GIRNLSFKVRSQGMALIISSGCGRASILDVITGRGHGKXKSGQIWINQGSTPOLVRK 146
 Db 64 -LSNINIGIMKPG-LNALIGPTGGKSSILDLVLAARKDPSGL-SGDVLINGAPRANF--K 118
 QY 147 C-VAHYRQDOLLPLNYRETLAFIAQMLPRTSQAQRKREVDYIAELRLRCANTRY 205
 Db 119 CMSGYVDDVVMGTLTYRENIQFSAALRLATTWINEKKNIRVQOGLDLYADSKV 178
 QY 206 GNTYVAGVSGGERRVSIGVOLLNPGILLDEPTSGIDSTAHNVITLTLRLAKGNRLV 265
 Db 179 GTQFIRGVSGGRKXTSIGMELITDPSILFDEPTTGDSSTANAVALLLKRMKSKQRTI 238
 QY 266 LISHQPRSDIFRLFDVLVLMTSGTPIYGAAGQVQYFSTIGHPCRYSNPADFYVDLT 325
 Db 239 IFSIHQPRYSIKFLDPSILLASGRLMHGPQKALGFESAGYHCEYNNPADFYDLIT 298
 QY 326 SIDRS-----KREVAIVK-----AQSLAALFLEKQGFDFL--WKAEAELN 369
 Db 299 NDBSTAVALNREDFKATEIIEPSKQDKPLLEKLAIEIVN-----SSPYETKAEHLQLS 353

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QY 370 TSTHTVSLTLTODTDCGTAVELPGMIEQSTLIRQISNDFRDLPTLLIHSEACIMSLI 429
DB 354 GGEKKKTIYFKKISTTTS-----FCHQLRWKSKRSFKLGNPQASIAQIIVTVLGLV 408
QY 430 IGFLLYGHGAKQSLFMDTALLFMIGALLIPENVLDVSKCHS-----ERSMLY 479
DB 409 IGAIFYGLKNDSTGIONRAGVLFPL-----TTNQCFSVSVAVELFVEKELFIH 457
QY 480 ELEDGLYTAGPYFPKATIGS-LPEHCAYVIYAMPYIWNLRPVEPELFLHFLVWLTV 538
DB 458 EYISGYRVSSTYFLGKLSLDPRLPMPLPSIIFTCIYFMGLKPKADAFVWMTLMWVA 517
QY 539 FCCRTMALASAMLPPTHMSFFCNALYNSFYLTAGFMINDNL--WIVPAMISKLSFLR 596
DB 518 YSASSMALALAAAGSVSVATLMTICFVPMIFSGLVNLTIASWL--SWLQYFSIPR 575
QY 597 WCFSGLMQIQFNHLYTTOIG-----NFTSILGDTMI--SAMDNSHPLVAYIYI 647
DB 576 YGFTALQHNELGQNFPCGMLATGNPCNYA-TCTGSEYLVKQSIDLSPWGLMKHVALA 634
QY 648 GISYGFLLYLLSLKLIKQKS 668
DB 635 CMIVIFLTIAVILKLLFLKYS 655

RESULT 13
US-10-120-687-61
; Sequence 61, Application US/10120687
; Publication No. US20030082155A1
; GENERAL INFORMATION:
; APPLICANT: Massachusetts General Hospital
; TITLE OR INVENTION: Stem Cells of the Islets of Langerhans and Their Use in Treating
; FILE REFERENCE: 3284/1235B
; CURRENT APPLICATION NUMBER: US/10/120,687
; CURRENT FILING DATE: 2002-04-11
; PRIOR APPLICATION NUMBER: US60/169082
; PRIOR FILING DATE: 1999-12-06
; PRIOR APPLICATION NUMBER: US 09/966,875
; PRIOR FILING DATE: 2001-09-25
; PRIOR APPLICATION NUMBER: US 60/215109
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/238880
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 09/733261
; PRIOR FILING DATE: 2000-12-06
; NUMBER OF SEQ ID NOS: 61
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 61
; LENGTH: 655
; TYPE: PRF
; ORGANISM: Homo sapiens
US-10-120-687-61

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Query Match 18.9%; Score 659.5; DB 14; Length 655;
Best Local Similarity 27.2%; Pred. No. 1.2e-53;
Matches 185; Conservative 141; Mismatches 270; Indels 85; Gaps 21;

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QY 28 FSSSDNSL-YFTYSGQNTLEVRDLTYOVDIASQVWFEQIAQFKIPWSSHSQDSCEL 86
DB 20 FPAASNDLKAF---EGAVLSFNICRYVAKLSGF-----LPCKRPVEKEI--- 63
QY 87 GIRNLSFKYRSGQMLAIIGSSGGRASLLDVTYRGHGKMKSGQIWINQSPSTFQLYRK 146
DB 64 -LSNINGIMKPG-LNAILGPTGGKSSLLDVLAARKDPSGL-SDVLINGAPRANF--K 118
QY 147 C-VAHVRODQLLPMLYRRTLAFLAQCRLPRTFSQARDKVEDVIAELRLQCANTRY 205
DB 119 CNSGIVVDDVVMGLTYRENLQFSALRLATYTNNEKMERINRVQELGLDVKADSKY 178
QY 206 GNTYVRGVSGGERRRVSIGVOLLNMPGILLIDEPSTGLDSTTANVYTTLSRLAKNRIV 265
DB 179 GTOFIRGVSGGERKATISIGMELITDPSILFIDEPITGDSSTANAVALLKRSKQGRTI 238

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QY 266 LISLHQRSDIFRLFDVLVLTMTSGTP-VILGAQOQVYFTSIGHPCPRYSNPADFYDLT 325
DB 239 IFSIHQPRYSIFKLFDLTLTLAGSRMLFHGPADALGFPSAGYCHPAVNNPADFFDII 298
QY 326 SIDRS-----KREVAITYEK-----AQSLALFLEKVGDFDEL--WVAENKLN 369
DB 299 NGDSTAVANLNREEDFKATEIIEPSKQPKLIEKLAELYA----SSFYETVLAELHQLS 333
QY 370 TSTHTVSLTLTODTDCGTAVELPGMIEQSTLIRQISNDFRDLPTLLIHSEACIMSLI 429
DB 354 GGEKKKTIYFKKISTTTS-----FCHQLRWKSKRSFKLGNPQASIAQIIVTVLGLV 408
QY 430 IGFLLYGHGAKQSLFMDTALLFMIGALLIPENVLDVSKCHS-----ERSMLY 479
DB 409 IGAIFYGLKNDSTGIONRAGVLFPL-----TTNQCFSVSVAVELFVEKELFIH 457
QY 480 ELEDGLYTAGPYFPKATIGS-LPEHCAYVIYAMPYIWNLRPVEPELFLHFLVWLTV 538
DB 458 EYISGYRVSSTYFLGKLSLDPRLPMPLPSIIFTCIYFMGLKPKADAFVWMTLMWVA 517
QY 539 FCCRTMALASAMLPPTHMSFFCNALYNSFYLTAGFMINDNL--WIVPAMISKLSFLR 596
DB 518 YSASSMALALAAAGSVSVATLMTICFVPMIFSGLVNLTIASWL--SWLQYFSIPR 575
QY 597 WCFSGLMQIQFNHLYTTOIG-----NFTSILGDTMI--SAMDNSHPLVAYIYI 647
DB 576 YGFTALQHNELGQNFPCGMLATGNPCNYA-TCTGSEYLVKQSIDLSPWGLMKHVALA 634
QY 648 GISYGFLLYLLSLKLIKQKS 668
DB 635 CMIVIFLTIAVILKLLFLKYS 655

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RESULT 14
US-10-405-806-2
; Sequence 2, Application US/10405806
; Publication No. US2003023262A1
; GENERAL INFORMATION:
; APPLICANT: HARA, YOSHIKAZU
; APPLICANT: KOMATANI, HIDEYA
; APPLICANT: KOTANI, HIDEHIITO
; APPLICANT: NAKAGAWA, RINKO
; TITLE OR INVENTION: DRUG RESISTANT GENE AND USE THEREOF
; FILE REFERENCE: 234985USOCONT
; CURRENT APPLICATION NUMBER: US/10/405,806
; CURRENT FILING DATE: 2003-04-03
; PRIOR APPLICATION NUMBER: PCT/JP01/08112
; PRIOR FILING DATE: 2001-09-18
; PRIOR APPLICATION NUMBER: JP2000-303441
; PRIOR FILING DATE: 2000-10-03
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Patent in version 3.2
; SEQ ID NO 2
; LENGTH: 655
; TYPE: PRF
; ORGANISM: Homo sapiens
US-10-405-806-2

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Query Match 18.9%; Score 659.5; DB 15; Length 655;
Best Local Similarity 27.2%; Pred. No. 1.2e-53;
Matches 185; Conservative 141; Mismatches 270; Indels 85; Gaps 21;

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QY 28 FSSSDNSL-YFTYSGQNTLEVRDLTYOVDIASQVWFEQIAQFKIPWSSHSQDSCEL 86
DB 20 FPAASNDLKAF---EGAVLSFNICRYVAKLSGF-----LPCKRPVEKEI--- 63
QY 87 GIRNLSFKYRSGQMLAIIGSSGGRASLLDVTYRGHGKMKSGQIWINQSPSTFQLYRK 146
DB 64 -LSNINGIMKPG-LNAILGPTGGKSSLLDVLAARKDPSGL-SDVLINGAPRANF--K 118
QY 147 C-VAHVRODQLLPMLYRRTLAFLAQCRLPRTFSQARDKVEDVIAELRLQCANTRY 205

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Page 9

Db 119 CNGYVVDVVMGTLVRENLFPSAALRLATMTNHEKNERINKEVIGELGDKVADSKV 178
QY 206 GNTYVGVSGGERRRVSIGVOLLMPGILIDEPISGDSFTAHNLVTLRLAKNRLV 265
Db 179 GTQFIRGVSGGERRKRTSIGEMELITDPSILFLDEPTGLDSTANAVLLIKRMSKQRTI 238
QY 266 LISLHQRSDIFRFLDVLVLMTSGTPIYGAAGQOVYFSTIGHPCPRYSPNADFYVDLT 325
Db 229 IFSIHQPRYSIFKLFPSLTLTLASGRLMFHPGPAQALGYFESAGYHCEAYNNPADFFLDII 298
QY 326 SIDRS-----KEREVATVEK-----AQSLALFLEKVGPDFFL--WRAKAKELN 369
Db 299 NGDSTAVALNRBEDFKATEIIEPSKODKPLIEKLAIEYVN-----SSFYKETAELHQLS 353
QY 370 TSTHTVSLTLTODTDCGTAVELPGMIEQPSLIRROISNDFRDLPTLLIHGSAACMSLI 429
Db 354 GGEKKKKITVFKELSYTTS-----FCHQLRWVSKRSFKNLGNPQASIAQIIVTVVLGV 408
QY 430 IGFLYVGHGAKQSLFMDTALLFMIGALLPENVILDVSKCHS-----ERSMLYX 479
Db 409 IGALYFGLKNDSTGIGNRAGVLFPL-----TTNQCFSSVASVELFVVEKKLFIH 457
QY 480 ELEDGLYTAGPYFPFAKILGE-LPEHCAYVLIYAMPYMLTNLRPVPELFLHLFLVWLTV 538
Db 458 EYISGYRVSSYFLGLSLDLPMLRPSIIFLCIYFVWLGLKPKADAFVVMFTLMVVA 517
QY 539 FPCRMTALASAMLPFTFMSFPCNALYNSFYLTAGFMINDNL--WIVPAMISKLSFLR 596
Db 518 YSASVAMALAIAGOSVSVATLMTICFVPMIFSGLLVNLTLTISWL--SWLQYFSIR 575
QY 597 WCFSGMIOIQFNHLYTTOIG-----NFTSILGDTMI--SAMDLSHPYAIYIYI 647
Db 576 YGFTALQHNREPLQGNPCPLNATGNNPCNYA--TCTGEBYLVKQIDLSFWMGLMKHVALA 634
QY 648 GISYGFLELYLSLKLKOKS 668
Db 635 CMIVIFLITAYLKLFLKXYS 655

RESULT 25
US-09-961-086-1
; Sequence 1, Application US/09961086
; Publication No. US20030036645A1
; GENERAL INFORMATION:
; APPLICANT: UNIVERSITY OF MARYLAND, BALTIMORE
; APPLICANT: ROSS, Douglas D.
; APPLICANT: DOYLE, L. Austin
; APPLICANT: ABRUTZO, Lynne
; TITLE OF INVENTION: BREAST CANCER RESISTANCE PROTEIN (BCRP) AND THE DNA
; FILE REFERENCE: EPI9376-019
; CURRENT APPLICATION NUMBER: US/09/961,086
; PRIOR FILING DATE: 2001-09-21
; PRIOR APPLICATION NUMBER: US 60/073,763
; PRIOR FILING DATE: 1998-02-05
; PRIOR APPLICATION NUMBER: PCT/US99/02577
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 655
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-961-086-1

Query Match 18.8%; Score 657.5; DB 10; Length 655;
Best Local Similarity 27.2%; Pred. No. 1.9e-53;
Matches 185; Conservative 141; Mismatches 270; Indels 85; Gaps 21;

QY 28 FSESDNSL-YFTYSGSNTLEVRDLTYQVDIASQVFMFQALQAFKIPWRSHSQSDSCSL 86
Db 20 FPAIASNDLAKFT--EGAVLSFHNICRYVKLSGF-----LPCKRKYVEKEI--- 63

QY 87 GINNLFFKVSQGLMALLIGSSGGRASLIDVTTRGHGGRKMSGGQIWINQESTPOLVER 146
Db 64 -LSNINQIMKPG-LNAILGPTGGKSLDVLNARCDPGL--SGDVLINGAPFPANF--K 118
QY 147 C-VAHVRQHQLPMLTVRETTAFIAQOMRLPRTFSGAQRDKREDVYAEIRLQCANTRY 205
Db 119 CNGYVVDVVMGTLVRENLFPSAALRLATMTNHEKNERINRYIOELGDKVADSKV 178
QY 206 GNTYVGVSGGERRRVSIGVOLLMPGILIDEPISGDSFTAHNLVTLRLAKNRLV 265
Db 179 GTQFIRGVSGGERRKRTSIGEMELITDPSILFLDEPTGLDSTANAVLLIKRMSKQRTI 238
QY 266 LISLHQRSDIFRFLDVLVLMTSGTPIYGAAGQOVYFSTIGHPCPRYSPNADFYVDLT 325
Db 229 IFSIHQPRYSIFKLFPSLTLTLASGRLMFHPGPAQALGYFESAGYHCEAYNNPADFFLDII 298
QY 326 SIDRS-----KEREVATVEK-----AQSLALFLEKVGPDFFL--WRAKAKELN 369
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QY 370 TSTHTVSLTLTODTDCGTAVELPGMIEQPSLIRROISNDFRDLPTLLIHGSAACMSLI 429
Db 354 GGEKKKKITVFKELSYTTS-----FCHQLRWVSKRSFKNLGNPQASIAQIIVTVVLGV 408
QY 430 IGFLYVGHGAKQSLFMDTALLFMIGALLPENVILDVSKCHS-----ERSMLYX 479
Db 409 IGALYFGLKNDSTGIGNRAGVLFPL-----TTNQCFSSVASVELFVVEKKLFIH 457
QY 480 ELEDGLYTAGPYFPFAKILGE-LPEHCAYVLIYAMPYMLTNLRPVPELFLHLFLVWLTV 538
Db 458 EYISGYRVSSYFLGLSLDLPMLRPSIIFLCIYFVWLGLKPKADAFVVMFTLMVVA 517
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QY 597 WCFSGMIOIQFNHLYTTOIG-----NFTSILGDTMI--SAMDLSHPYAIYIYI 647
Db 576 YGFTALQHNREPLQGNPCPLNATGNNPCNYA--TCTGEBYLVKQIDLSFWMGLMKHVALA 634
QY 648 GISYGFLELYLSLKLKOKS 668
Db 635 CMIVIFLITAYLKLFLKXYS 655

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